ICOM

INSTRUCTION MANUAL

REMOTE CONTROL SOFTWARE

RS-R75

Icom Inc.

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the receiver.

SAVE THIS INSTRUCTION MANUAL — This instruction manual contains important operating instructions for the **RS-R75 REMOTE CONTROL SOFTWARE**.

USE antenna(s), such as a well-matched 50 Ω antenna and feedline. For radio communications, the antenna is of critical importance, along with sensitivity.

CAUTIONS

⚠**WARNING! NEVER** connect the receiver to an AC outlet. This may pose a fire hazard or result in an electric shock.

NEVER connect other than the specified AC adapter to the receiver. This connection will ruin the receiver.

NEVER connect the receiver to a power source of more than 16 V DC such as a 24 V battery. This connection will ruin the receiver.

NEVER expose the receiver to rain, snow or any liquids.

DO NOT use or place the receiver in areas with temperatures below –10°C (+14°F) or above +60°C (+140°F) or, in areas subject to direct sunlight.

AVOID placing the receiver in excessively dusty environments.

AVOID the use of chemical agents such as benzine or alcohol when cleaning, as they damage the receiver surfaces.

SYSTEM REQUIREMENTS

- IBM PC/AT compatible computer
- An RS-232C serial port
- Microsoft® Windows® 95 or Microsoft® Windows® 98
- Intel i486DX4 processor or faster (Pentium® 100 MHz or faster recommended)
- At least 16 MB RAM
- At least 10 MB of hard disk space
- At least 640 × 480 pixel, High color (16 bit) display (800 × 600 pixel display recommended)

OPERATING THEORY

Electromagnetic radiation which has frequencies of 30,000 Hz (30 kHz*) and above is called radio frequency (RF) energy because it is useful in radio transmissions. The IC-R75 receives RF energy from 0.03 MHz* to 60 MHz and converts it into audio frequency (AF) energy which in turn actuates a loudspeaker to create sound waves. AF energy is in the range of 20 to 20,000 Hz.

*kHz is an abbreviation of kilohertz or 1000 hertz, MHz is abbreviation of megahertz or 1,000,000 hertz, where hertz is a unit of frequency.

OPERATING NOTES

The IC-R75 may receive its own oscillated frequency, resulting in no reception or only noise reception, on some frequencies.

The IC-R75 may receive interference from extremely strong signals on different frequencies or when using an external high-gain antenna.

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SPECIAL NOTES

1. As a general prerequisite American English is used. When other languages are put into practice there are cases where these messages can not be read.

2. The IC-R75 VFO/MEMO and the control software of VFO/MEMO can not be linked.

3. In the control software, the 'S-AM' does not blink.

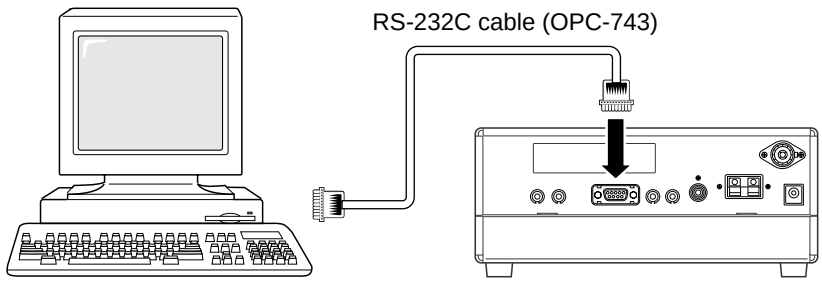
4. With no relation to the IC-R75 filter selection, you can select filters (W/N) on the control software, but appropriate filter is automatically selected in some cases.

5. Because the scan methods of the IC-R75 and control software are different, the scan speed also differs.

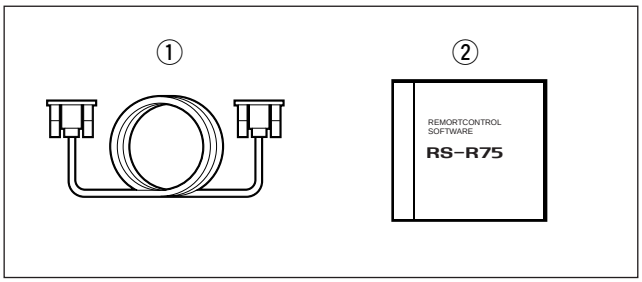
1 INSTALLATION

■ Hardware installation

Refer to the diagram in the IC-R75 instruction manual p. 10 for connections.



■ Supplied accessories



Accessories included with the receiver: **Qty.**

① RS-232C cable (OPC-743) 1

② Software CD-ROM . . . . . .1 set

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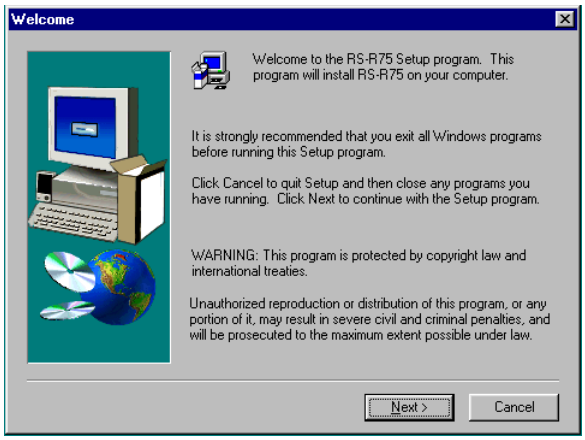
■ Software installation

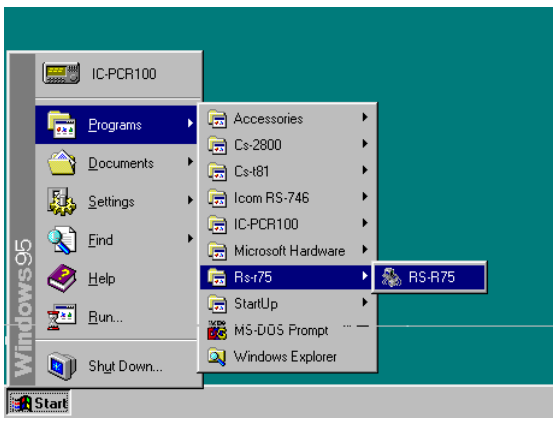
NOTE: Depending on the Windows® system files, the PC may require rebooting. In this case, repeat the installation from the beginning.

◇ Installation

① Boot up Windows.
• Quit all applications when windows is running.
② Insert the RS-R75 CD-ROM into the appropriate CD-ROM drive.
③ Select 'Run' from the [Start] menu.
④ Type the setup program name with full path name, then press the [Enter] key. (D*:\RS_R75\disk1\Setup.exe [Enter], * CD-ROM drive name may differ depending on setting)
⑤ Following dialog appears. Follow the prompts.



⑥ Program group 'Rs-r75' appears in the 'Programs' folder of the [Start] menu.



◇ Software update information

Software update information will be available at the Icom America home page:

http://www.icomamerica.com/

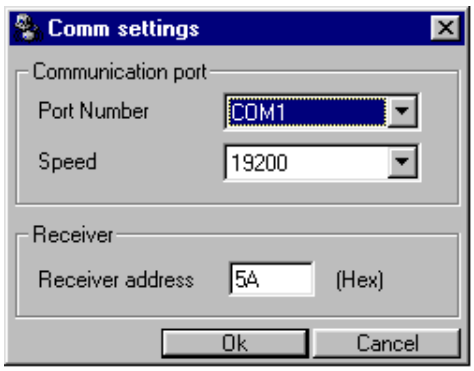
■ COM (RS-232C) port settings

'COM ERR' or 'Can not open port. Already open?' dialog box appears when the RS-232C serial port is not set correctly.

NOTE: When launching the program for the first time, this setting dialog appears for the setting of RS-232C serial port.

◇ Port setting

① Before launching the program, make sure the RS-232C cable is connected correctly.
② Launch the RS-R75 software.
③ Click the [POWER] button in the tool bar or on the front panel.
④ Click the [Options] button then select 'Port setting' in the menu to bring up the [CommSettings] dialog box.
⑤ Click and select the desired COM port number.
⑥ Set the data transfer rate according to the connected PC's port speed.
⑦ Set 'Receiver (CI-V) address' if the other address is selected on connected IC-R75. (default; 5A)
⑧ Click the [OK] button.



■ Mouse property setting

The RS-R75 uses left and right buttons to rotate a control knob on the receiver screen or to call up the shortcut menu. Depending on the mouse property setting of the control panel, main and sub mouse button functions are alternated.

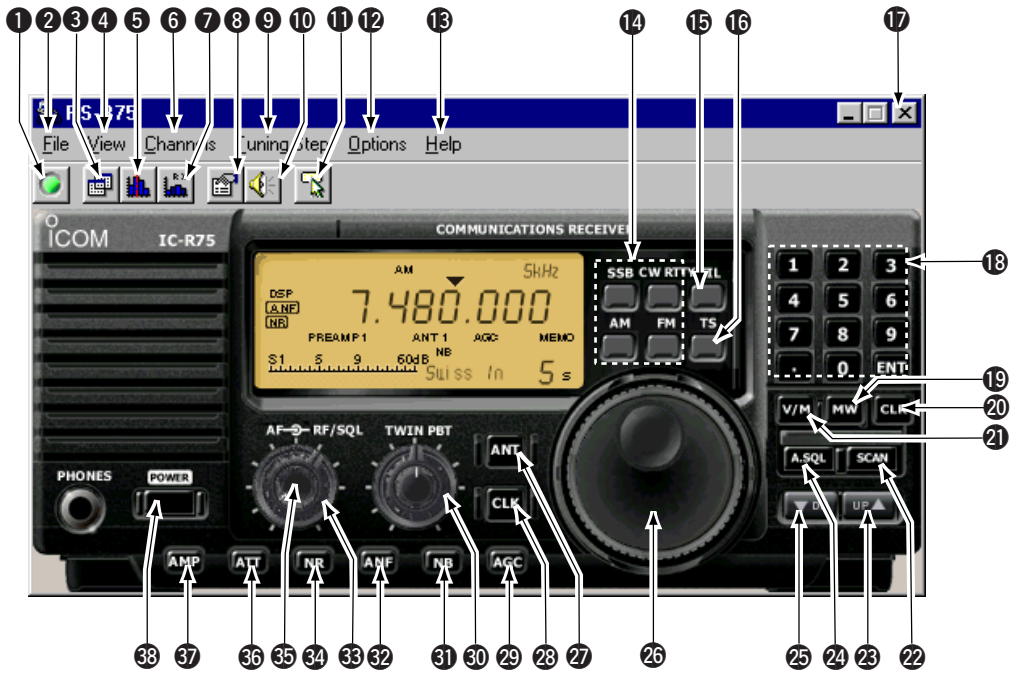
In this instruction manual, the operation is described with setting for right-handed (Windows® default setting).

◇ Setting the button configuration

① Select 'Settings' from the [Start] menu and click 'Control Panel.'
② Open the mouse control panel.
③ Select the button configuration to right- or left-handed.
④ Click [OK] to set and exit the control panel.

2 PANEL DESCRIPTION

■ Front panel



❶ POWER SWITCH [POWER]
Toggles the receiver power ON and OFF.

❷ FILE MENU [File]
Used for turning OFF the software.

❸ MEMORY BANKS BUTTON
Click to display the “Memory Bank” screen.

❹ VIEW MENU [View]
Used for showing the “Memory bank” screen, “Band scope” screen and “Scan manager” screen.

❺ BAND SCOPE BUTTON
Push to display the “Scope manager” screen.

❻ MEMORY CHANNEL SELECT MENU [Channels]
Used for selecting the memory channel number directory.

❼ SCAN MANAGER BUTTON
Push to display the “Scan manager” screen.

❽ RECEIVER SETTING BUTTON
Click to indicate the receiver settings menu.
➥General, Sound and Display menu are available. (p. 15)

❾ TUNING STEP SELECTION [Tuning Step]
Click to indicate the tuning step selection menu. Available tuning steps for selection as follows;
1 Hz, 10 Hz, 100Hz, 1KHz, 5 KHz, 6.25 KHz, 9 KHz, 10 KHz, 12.5 KHz, 20 KHz, 25 KHz, 100 KHz, 1 MHz.

❿ AF MUTE BUTTON [Mute]
Push to turn the audio mute function ON and OFF.

⓫ TOOLTIPS BUTTON
Push to turn the tooltips ON and OFF.

⓬ [Options]
Click the [Options] to bring up the “Receiver settings”, “Port settings” and “Tooltips” screen.

⓭ HELP [Help]
Click to bring up the Help contents, click menu to call Icom home pages and software version number or copyright.

⓮ MODE SELECT BUTTON
➥Click [SSB] to toggle USB or LSB mode.
➥Click [CW RTTY] to toggle CW or RTTY mode, click and hold [CW RTTY] for 1 sec. to toggle reverse [REV] mode on ON and OFF
➥Click [AM] to toggle AM or S-AM* mode.
➥Click [FM] to select FM mode.

⓯ IF FILTER SELECT BUTTON
Click to select the IF narrow filter or wide filter. (Optional IF filters required in some cases.)
• Usable IF filters vary according to receive mode.

⓰ TUNING STEP SELECT BUTTON
Left click to toggle TS steps.
• Right-click* to display the TS selection menu, select desired tuning steps if necessary.

⓱ CLOSE BUTTON
Push to quit and exit the software.

⓲ KEY PAD [0]-[9], [•], [ENT] (p. 6)
➥[0] to [9] are used to input a received frequency directly.
➥[•] (Decimal) button is used to set the MHz digit when inputting a frequency.
➥[ENT] (Enter) button is used to set the input frequency.

⑲ **MEMORY WRITE [MW]**
Push [MW] to program the displayed frequency, operating mode and filter width into the memory channel.

⑳ **CLEAR INPUT [CLR]**
➥Click [CLR] when a key is mistakenly pushed.
➥Push and hold 1 sec. to clear all memory contents when memory mode is selected.

㉑ **VFO/MEMORY KEY [V/M]**
Push to toggle between VFO and memory modes.

㉒ **SCAN [SCAN]** (p. 12)
Push to turn the "Scan manager" screen ON.

㉓ **MEMORY CHANNEL UP BUTTON [UP▲]**
➥Right-click* to increase the memory channel number.
➥Left-click* to bring up memory channel list screen to select the previous channel.

㉔ **AUTO SQUELCH [A.SQL]**
Automatically sets the squelch level to the threshold point.

㉕ **MEMORY CHANNEL DOWN BUTTON [▼DN]**
➥Right-click* to decrease the memory channel number.
➥Left-click* to bring up memory channel list screen to select the previous channel.

㉖ **TUNING DIAL**
Push to set the receive frequency with the selected tuning step.
• Right-click* to increase the frequency; left-click to decrease the frequency.

㉗ **ANTENNA SELECTER [ANT]**
Push to select [ANT 1] or [ANT 2].

㉘ **CLOCK BUTTON [CLK]**
Push to display the actual time.

㉙ **AGC SWITCH [AGC]** (p. 8)
Push momentarily to cycle through the AGC time constants:
[OFF] → [AGC] → [F.AGC]

㉚ **TWIN PBT**(p. 7)
Shift the center frequency of receiver's IF passband.
• Right-click to shift the center frequency higher, or left-click to shift the center frequency lower.

㉛ **NOISE BLANKER SWITCH [NB]** (p. 8)
Push to activate the noise blanker function.
• The noise blanker is used for removing pulse-type noise when SSB, CW or AM mode is selected.

㉜ **AUTOMATIC NOTCH FILTER SWITCH [ANF]** (p. 8)
(Optional UT-106 DSP UNIT is required)
Push to toggle the automatic notch filter function ON and OFF.
• The automatic notch filter automatically attenuates beat tones, tuning signals, etc., even if they are moving. The automatic notch filter functions in SSB, FM and AM modes.

㉝ **RF GAIN CONTROL/SQUELCH CONTROL [RF/SQL]** (p. 7)
➥Adjusts the squelch threshold level (to mute noise when receiving no signal) in all modes.
➥This control can be used for RF gain control to adjust receiver gain manually.
• RF gain selection can be set in Receiver Settings screen.
• RF gain is usable in SSB/CW/RTTY modes only.

㉞ **NOISE REDUCTION [NR]** (Optional UT-106 DSP UNIT is required)
Push to toggle the noise reduction function ON and OFF.
The noise reduction function reduces noise components and picks out desired signals which are buried in noise. The received AG signals are converted to digital signals and then the desired signals are separated from the noise. The noise reduction functions in all modes.

㉟ **AF CONTROL**
Adjust the audio output.
• Right-click* to increase the volume level; left-click* to decrease the volume level.

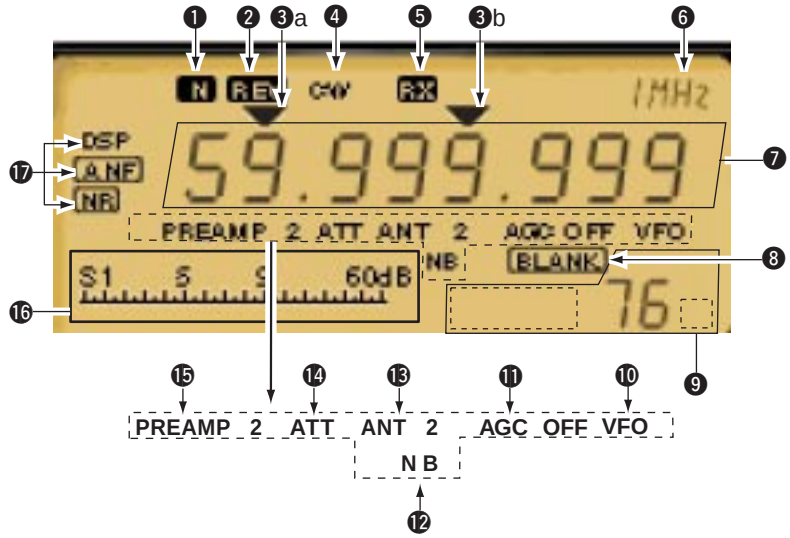
㊱ **ATTENUATOR [ATT]**
The attenuator prevents desired signals from distorting when other strong signals are near the desired frequency or when very strong electric fields, such as from broadcasting stations, are near your location.
• Push to turn the 20 dB attenuator ON and OFF.

㊲ **PREAMP SWITCH [AMP]**
The preamp amplifies received signals in the front end circuit to improve the S/N ratio and sensitivity. Turn this function ON when receiving weak signals.
• Push to turn the [PREAMP 1] or [PREAMP 2] ON or OFF.

㊳ **POWER SWITCH [POWER]**
Toggles the receiver power ON and OFF.

* When the mouse property is set for right-handed.

■ Function display



❶ IF WIDE/NARROW FILTER INDICATOR [W]/[N]
Indicates the selected IF filter and signal passband width.

❷ RX REVERSE INDICATOR [REV]
Indicates the reverse mode (CW and RTTY modes only) being selected.

❸ PROGRAMMABLE/1 MHz TUNING STEP INDICATORS
➥❸a appears when the 1 MHz tuning step is selected.
➥❸b appears when the programmable tuning step is selected.

❹ RECEIVE MODE INDICATORS
Indicates the current receive mode.

❺ BUSY INDICATOR [RX]
Appears when receiving a signal or when signal noise opens the squelch.

❻ TUNING STEP INDICATOR
This is the frequency increment used when selecting a frequency using the tuning dial and when searching for signals using a scan function.

❼ FREQUENCY INDICATION
Indicates the receive frequency or internal clock time.

❽ BLANK INDICATOR [BLANK]
Appears when the displayed memory channel has no contents.

❾ MEMORY CHANNEL NUMBER READOUT
Shows the selected memory channel number.
- 'S' reveals that the displayed memory channel is designated as a select memory channel.
- Comment appears at the right of channel number when a comment has been preprogrammed in the memory bank.

❿ VFO/MEMORY INDICATOR [VFO/MEMO]
Indicates the memory bank number (and its name if it has one) being received.

⓫ AGC INDICATOR [F.AGC/OFF]
Shows the time constant of the AGC circuit.

⓬ NOISE BLANKER INDICATOR
Appears when the noise blanker is activated.

⓭ ANTENNA INDICATOR [ANT 1/2]
Indicates the selected antenna number.

⓮ ATTENUATOR INDICATOR [ATT]
Appears when the attenuator function is on.

⓯ PREAMP INDICATOR [PREAMP 1/2]
Appears when the attenuator function is on.

⓰ S (SIGNAL) METER
Indicates the receive signal strength. Also indicates the S-meter squelch receive level set via the [SQUELCH] control.

⓱ DSP/ANF/NR INDICATOR (OPTIONAL UT-106 is required)
➥[DSP] appears when the optional DSP unit is installed.
➥[ANF] appears when the ANF (Automatic Notch Filter) function is turned ON.
➥[NR] appears when the NR (Noise Reduction) function is turned ON.

■ Receiving

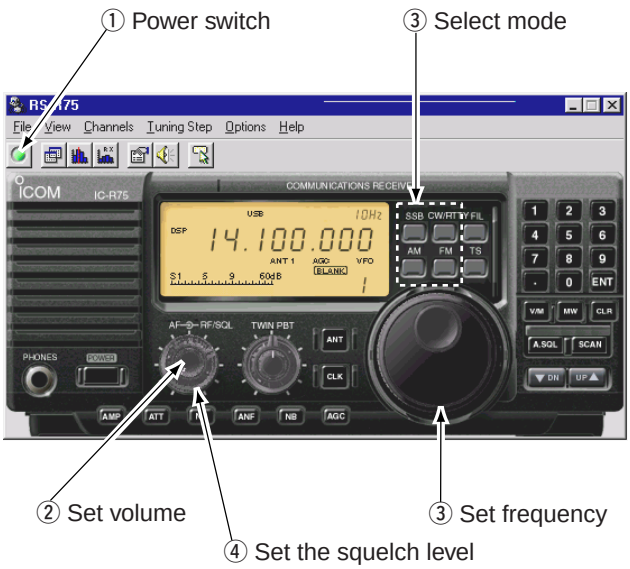
Make sure the hardware installation is finished. (p. 1)

◇Using the multi-function receiver screen

① Click [POWER] to turn power ON.
② Click the [VOLUME] control with the sub mouse button to increase the audio level; click the [VOLUME] control with the main mouse button to decrease the audio level.
- When clicking and holding the control, the audio level scrolls up or down.

③ Set an operating frequency and mode. (p. 3)
④ Click the [SQUELCH] control with the sub mouse button to increase the squelch level (tight squelch); click the [SQUELCH] control with the main mouse button to decrease the squelch level (loose squelch).
- When clicking and holding the control, the squelch level scrolls up or down.

⑤ When a signal is received:



➥Squelch opens and audio is emitted from the speaker.
➥The S-meter shows the relative signal strength.

■ Setting a frequency

Depending on the situation, the receive frequency can be set using the following methods. Frequencies can be set from 30.000 KHz to 60.000000 MHz.

◇Using the tuning dial

➥Click the tuning dial with the sub mouse button to increase the frequency; click the tuning dial with the main mouse button to decrease the frequency.
- The frequency changes according to the preset tuning steps. See the next page for selecting the tuning step.
- When clicking and holding either button the frequency scrolls up or down.

◇Using the keypad

➥Click the desired numeral buttons, then click [ENT] to set the frequency.
- When making a mistake while inputting a frequency, click [CE] to clear the input and return to the previous frequency.
- When you want to change the 100 kHz digit and below, click [•] first, then the numeral buttons and then [ENT].
- When you want to set the 100 kHz digit and below to 0, input the MHz digits and then click [ENT].
- When inputting a frequency outside of the allowed receive frequency range, the previously selected frequency is automatically selected after clicking [ENT].

◇Using the PC keyboard

➥Push the desired numeral keys, then push [Enter] to set the frequency.
- When inputting from the keyboard, click anywhere in the receiver screen first, then begin inputting from the keyboard.
- When making a mistake while inputting a frequency, push [Esc] to clear the input and return to the previous frequency.
- When you want to change the 100 kHz digit and below, push [•] first, then the numeral keys and then [Enter].
- When you want to set the 100 kHz digit and below to 0, input the MHz digits and then push [Enter].
- Push [⬅] or [➡] to set the frequency according to the selected tuning step.
- When inputting a frequency outside of the allowed receive frequency range, the previously selected frequency is automatically selected after clicking [Enter].

■ Setting a tuning step

When using the tuning dial to change the frequency, or when a scan function is activated, the frequency changes in increments determined by the set tuning step. This can be changed if desired.

The following tuning steps are available.

•1 Hz •10 Hz •100 Hz •1 kHz •5 kHz •6.25 kHz
•9 kHz •10 kHz •12.5 kHz •20 kHz •25 kHz •100 kHz
•1 MHz

◇Using the [TS] switch

➥Click [TS] to set the desired tuning step.
- The selected tuning step is displayed in the function display.

◇Using the function menu

① Push the PC's [Alt] and select the 'Tuning Step' then push [Enter].
② Push the [⬆] or [⬇] key to select the desired tuning step.
- The selected tuning step is displayed in the information display if this is in use.

■ Receive mode selection

Receive modes are determined by the physical properties of the radio signals. The receiver has 9 receive modes: FM, AM S-AM, LSB, USB, CW, CW-R, RTTY and RTTY-R modes.

Typically, AM mode is used for the AM broadcast stations (0.495–1.620 MHz), and FM is used for 28 MHz/50 MHz FM stations.

◇Using the [SSB],[CW RTTY],[AM] or [FM] buttons.

➥Click [SSB], [CW RTTY], [AM] or [FM] momentarily to select the desired receive mode.
- Click and hold for 1 sec to select reverse mode. [R] appears on the display.

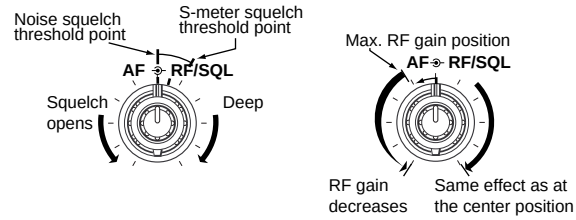
■ RF gain and squelch

The RS-R75 uses the same control [RF/SQL], to adjust one of either the RF gain or the squelch.
[RF/SQL] adjusts either the RF gain or the squelch depending on the operating mode selected and the condition of the RF gain item in "Receiver Settings" in the Options menu. (p. 15)

The *RF (Radio Frequency) gain* is used to adjust the receiver gain.
- This control should be set to the 11 o'clock position for normal use.
- Shallow rotation moves the S-meter to the follow indicating the signal strength which can be received.

The SQUELCH removes noise output from the speaker (closed condition) when no signal is received. The squelch is particularly effective for FM. It is also available for the other modes.
- When operating in FM, first rotate the control fully counterclockwise. Then, rotate the control clockwise to the point where the noise just disappears. This is the best position. The squelch does not open for weak signals when it is set too deep.
- A segment appears in the S-meter to indicate the S-meter squelch level.

Set mode setting	USB, LSB, CW, RTTY	AM, S-AM, FM
Sq (SQL)	SQL*	SQL*
At (AUTO)	RF GAIN	SQL*
rS (RF/SQL)	RF/SQL	RF/SQL



■ TWIN PBT

The PBT function electronically narrows the receiver's IF passband widths to reduce interference. Moving both [TWIN PBT] controls to the same position shifts the IF.

➥Click the [TWIN PBT] controls to adjust this function.
- [TWIN PBT] should normally be set to the center positions when there is no interference.
- When PBT is used, the audio tone may change.
- PBT may not function with some filter combinations.
- Not available in FM mode.

■ IF filter [FIL] selection

Increasing or decreasing the width of incoming signals can help eliminate interference. Available filters vary according to the receive mode.

◇Using the [FIL] button

➥Click the [FIL] buttons momentarily to select narrow;[N] filter, wide;[W] filter or standard widths.

■ Attenuator function [ATT]

Strong signals (such as from broadcast stations, pocket beepers, nearby amateur radio stations, etc.) can cause distortion of received signals. The attenuator function can reduce strength of interfering signals by approx. 20 dB.

◇ Using the [ATT] button

➥Click [ATT] to toggle the attenuator function ON and OFF.
- "ATT" appears in the function display.

■ Noise blanker function [NB]

The noise blanker reduces pulse-type noise such as that generated by automobile ignition systems. This function is not effective for FM modes or for non pulse-type noise.

➥Click [NB] to toggle the noise blanker function ON and OFF.
- "NB" appears in the function display.

■ AGC time constant

The AGC (Automatic Gain Control) controls receiver gains to produce a constant audio output level even when the received signal strength is varied by fading, etc. Use AGC slow for normal phone operation; AGC fast for receiving data and searching for signals. AGC time constant cannot be changed in FM mode.

➥Click [AGC] to toggle the AGC time constant between fast and slow.

➥Click and hold [AGC] to turn the AGC time constant OFF.

■ Automatic Notch Filter [ANF] function (UT-106 DSP unit requires)

The automatic notch filter automatically attenuates beat tones, tuning signals, etc. , even if they are moving. The automatic notch filter functions in SSB, FM and AM modes.

➥Click the [ANF] buttons to toggle the automatic notch filter function ON and OFF.
- "ANF" appear when the function is ON.

■ Noise Reduction function [NR] (UT-106 DSP unit requires)

The noise reduction function reduces noise components and picks out desired signals which are buried in noise. The received AF signals are converted to digital signals and then the desired AF signals are separated from the noise. The noise reduction functions in all modes.

➥Left click the [NR] buttons to toggle the noise reduction function ON and OFF.
- "NR" appear when the function is ON.

➥Right click the [NR] buttons to display the noise reduction level. Left click to set the noise reduction level.
- Level '0' means the function OFF.
- Set the control for maximum readability. High level results in audio signal masking or distortion.

■ Preamp function [AMP]

The preamp amplifiers receive signals in the front end circuit to improve the S/N ratio and sensitivity. Turn this function ON when receiving weak signals.

➥Click the [AMP] buttons to toggle the preamp 1, preamp 2 and OFF.
- "PREAMP 1 (or 2)" appear when the function is ON.

■ General

One memory bank consists of 101 memory channels (99 normal memory channels + 2 scan edge channels) for storage of often-used frequencies.

◇ Memory channel contents

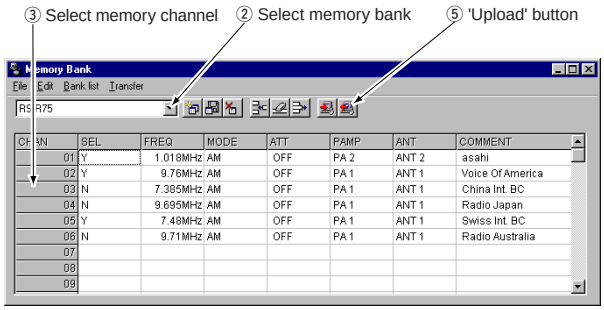
The following information can be programmed into memory channels:

- Select memory scan setting (p. 13)
- Operating frequency (p. 6)
- Receive mode (p. 3)
- Attenuator ON/OFF (p. 8)
- Preamp 1/2 or OFF (p. 8)
- Antenna connector 1/2
- Memory channel comment

■ Saving memory banks

The memory banks can be stored as a PC file.

➥ Select [Save] or [Save As] on the [File] menu to back up memory channel data.
➥ Select [Open] on the [File] menu to open memory channel data.
➥ Select [New] on the [File] menu to make a new file for memory channel data.



■ Selecting a memory channel

◇ Using the [UP▲] or [DN▼] button on the front panel

➥ Left click the [UP▲] or [DN▼] button to call the memory list screen, then right click the desired memory channel number.
➥ Right click to display the channel number cell, then left click to select the desired item.

◇ Using the memory bank screen

① Click the 'Memory banks' screen from the [View] menu if it is not displayed.
- Or click the [Memory banks] button.

② Click the 'Bank list" and select the desired bank name. Click again to select desired bank.
③ Click the desired channel number and double click to set the desired memory contents.
- Click the data area you want to call up, then double click to call up the data.

◇ Send bank data to the receiver

➥ Click the 'Write' in the Transfer menu or push the 'upload' button to transfer the selected bank contents to the receiver.

◇ Read bank data to from receiver

➥ Click the 'Read' in the Transfer menu or push the 'Download' button to transfer the selected bank contents from the receiver.

■ Memory channel programming

Each memory bank can hold up to 101 channels and can store the information listed below.

Select memory scan setting [SEL], operating frequency [FREQ], receive mode [MODE], IF filter narrow/wide[N]/[W], attenuator 20dB/OFF [ATT], preamp 1/2 or OFF [PAMP], antenna connector 1/2 [ANT], memory channel comment [COMMENT].

◇Using the [UP▲] or [DN▼] on the frontpanel

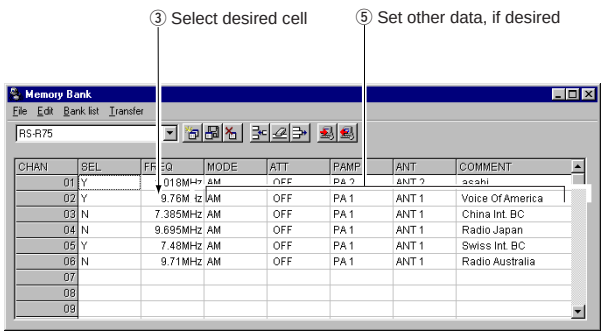
① Click the [UP▲] or [DN▼] button to select a memory channel to be programmed.
② Set a frequency and mode, etc. that you want to memorize.
③ Click the [MW] button to program the displayed frequency into the memory channel.

◇Using the 'Memory bank' screen

① Call up the 'Memory banks' screen if it is not displayed.
- Click the 'Memory banks' screen button or select 'Memory banks' from the [View] menu.

② Click bank lists or select a bank name with [▾] in order to select a desired memory bank.
③ Click a cell in the [FREQ] column and the desired memory channel line.
④ Input the receive frequency from the keyboard, then push [Enter].
- Input frequency first in order for other data to be input.

⑤ Set other data such as mode, tuning step, etc., if desired.
- Click the desired cell, select the desired item and double-click the selection.



■ Editing the memory bank list

◇Editing a bank name

Bank names and memory comment can be set or changed for the screen being used.

① Call up the 'Memory banks' screen if it is not displayed.
- Click the memory bank button or select 'Memory banks' from the [View] menu.

② Click to select a bank name with [▾] to allow selection of a memory bank.
③ Click the memory bank name indicator or a memory comment cell on the 'Memory banks' screen.
- The memory bank name or memory comment is highlighted.

④ Input the name from the keyboard.
- Push [Enter] first to modify the previously input name.

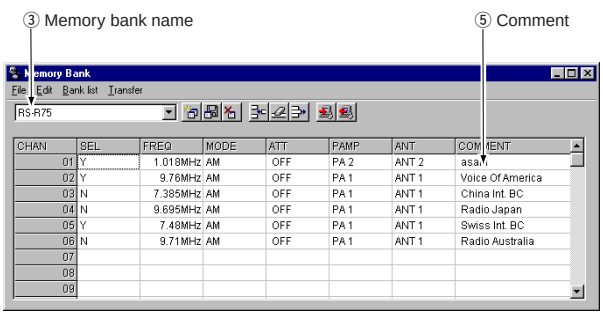
⑤ Push the [Enter] key to input the name.

◇Inserting and deleting channels

New blank channels can be inserted into the channel list and channels no longer needed can be deleted from the channel list.

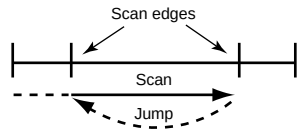
① Call up the memory bank screen if it is not displayed.
- Click the memory bank screen button or select 'Memory bank' from the [View] menu.

② Select a desired bank name with [▾] to allow selection of a memory bank.
③ Click the position where you want to insert/delete a channel.
④ Click 'Insert', 'Remove' or 'Clear' to insert, remove or clear the channel at the selected position.
- When memory channel 99 is not a blank channel, a new blank channel can not be inserted. Delete a channel or use another memory bank in this case.



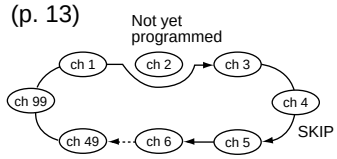
■ Scan types

PROGRAMMED SCAN
(p. 12)



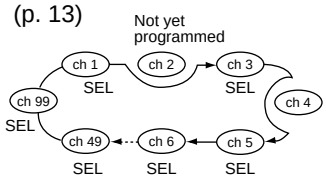
Repeatedly scans between two user-programmed frequencies. Used for checking for frequencies within a specified range such as repeater output frequencies, etc.

MEMORY SCAN
(p. 13)



Repeatedly scans memory channels within a memory bank (1–99).

SELECT MEMORY SCAN
(p. 13)



Repeatedly scans only select memory channels within a memory bank. This function can be turned ON/OFF in [Scan manager] tab. Select channels can be set in the memory list screen.

Up to 10 programmed scan ranges, memory scan, memory select scan, memory skip scan, mode select memory scan and auto memory write scan provide scanning versatility.

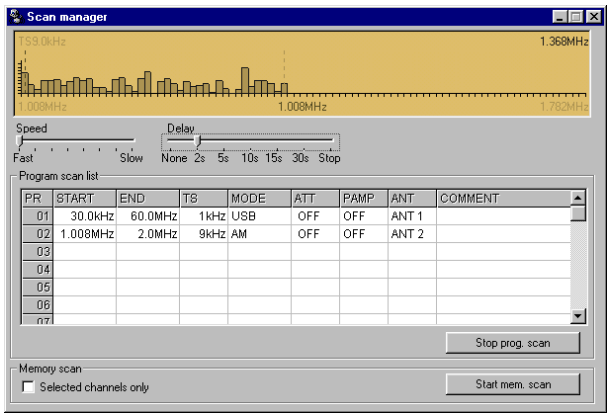
■ Programmed scan

Programmed scan automatically searches for signals within a specified frequency range.

For programmed scan, scan edges must be programmed in advance. See the following section for details.

◇ Program the program scan edge channels

① Click the desired program channel number cell, then enter start frequency, end frequency, TS(tuning step), mode (IF filter selection and CW RTTY reverse also available), attenuator 20 dB or OFF, preamp 1, 2 or OFF, Antenna 1 or 2 and comments.
② Make sure the squelch is set to the threshold point.
③ Click to select the desired programmable channel.
④ Click the [Start prog. scan] button to start programmed scan.
⑤ To cancel the scan, click [Stop prog. scan].
- When the frequency is changed after canceling a scan and a new scan is activated, scan starts from the starting frequency of the specified frequency range. When the frequency is not changed, scan starts from the previously stopped frequency.



■ Setting scan edges

Settings such as frequency range, receive mode, tuning step, etc. must be set in advance. Up to 10 settings can be programmed.

① Call up the 'Scan manager' screen if it is not displayed.
- For the receiver screen, click the [SCAN] button.
- Click the 'View" menu and select the 'Scanner'.

② Click the desired program channel cell to edit the program list.
③ Click a start frequency cell in the [START] column to select the data input condition.
- When a cell is clicked, the scan edges of the line are automatically set as scan edges.

④ Input the start frequency into the selected cell from the keyboard, then push [Enter] (data appears automatically in other cells when new range is entered.).
- Data must be set in this cell or the [END] cell before data can be set in other cells.

■ Scan resume condition

When receiving a signal, scan automatically pauses on that signal. The scan resume condition sets the time that the scan pauses before resuming or whether scan stops instead of pausing.

Click the [Delay] bar, then click to select a resume condition.

➥None; scan does not stop even if receiving a signal.
➥2S, 5S, 10S, 15S and 30S; scan resume on with adjusted delay period
- When setting a time delay using the [Delay] control bar, scan pauses when receiving a signal and then resumes after the specified delay.

➥Stop; scan stop'
- When a signal is received during scan, scan stops and does not resume.

■ Scan speed setting

The searching speed of frequencies or memory channels is variable.

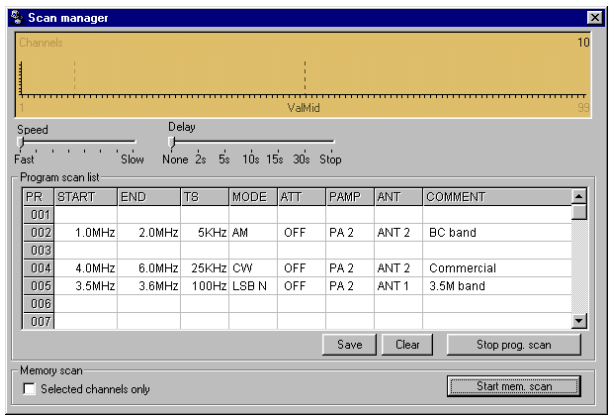
➥Click the [Speed] control bar with the main mouse button to select the scan speed.

■ Memory scan

This function searches all memory channels in a selected memory bank

① Make sure the squelch is set to the threshold point. (closed condition)
② Select the desired bank name with [▼] button to allow selection of the memory bank.
③ Click the [SCAN] button to call up the Scan manager screen if it is not displayed.
④ Click the [Start mem. scan] button to start memory scan.
⑤ Make sure the 'Selected channels only' check boxes are checked (✔) for 'select memory scan' function.
  • When selecting the [Selected channels only] box, only memory channels specified as SEL (Y) are scanned.
⑥ To cancel the scan, click [Start mem. scan] again.

- All settings can be used simultaneously.
- SEL is set in the memory list screen.
- At least 2 memory channels must be programmed with the desired condition for scan to proceed.



■ Operation

The band scope function allows you to visually check a specified frequency range. Sweep range varies 'Very Narrow' through 'Very Wide' with setting of the span steps.

◇ Scope manager

① Click the [Band Scope] in the 'View' menu to bring up the 'Scope Manager' screen.
-Conditions over entire set frequency span can be observed around the center frequency of the current received frequency.
② Click the [START] button to start (or stop) a sweep.

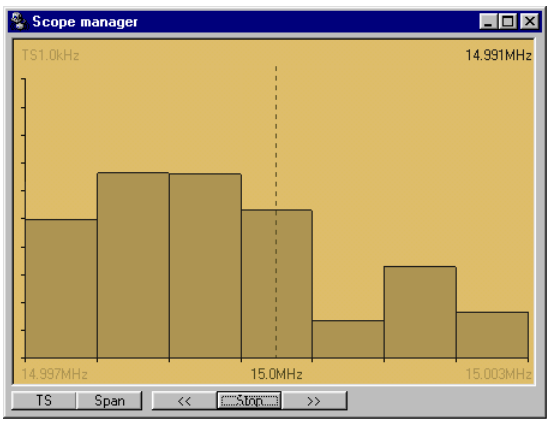
You can select a displayed signal frequency by clicking the waveform. The selected frequency is displayed in the center.

◇ Setting TS and span

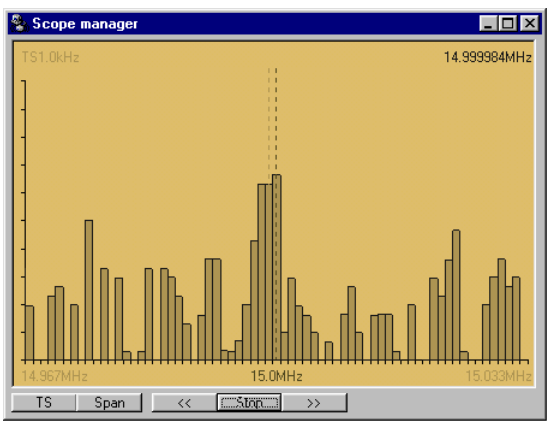
The number of (M/K)Hz that the band scope indicates above and below the center of the receive frequency can be changed.
Click 'Span', then select the sweep width through 'Very Narrow' (±3 tuning steps) to 'Very Wide' (±33 tuning steps).

- Choose 'Very Narrow' when band conditions are crowded (many signals are present); choose 'Very Wide' when few signals are present.

•Span; Very Narrow, TS; 1 KHz



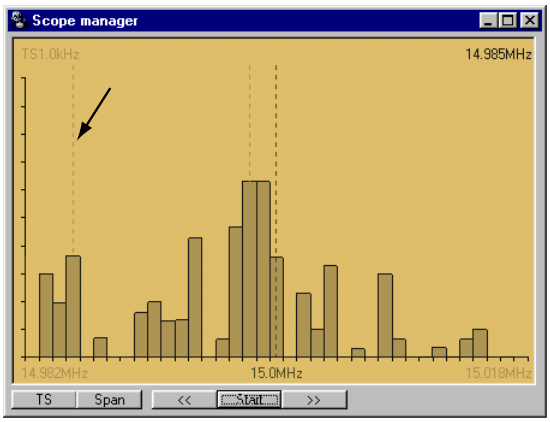
•Span; Very Wide TS; 1 KHz



◇ Moving the center frequency

When you find a signal you want to listen to while using the band scope function, move the mouse over the signal location in the Scope manager display and click. The receive frequency moves to that frequency.
In this case, the previously received frequency is displayed at center after clicking the [START] button .

- Click the displayed signal frequency.



■ Receiver settings

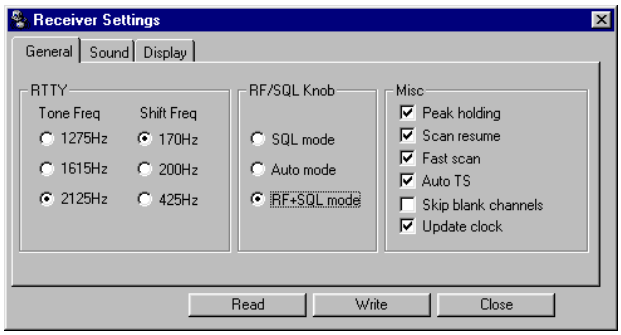
◇ Send setting data to the receiver

➥Push the 'Write' button to transfer the 'Receiver settings' contents to the receiver. All adjusted value will be effective after the 'Write' button has been pushed.

◇ Read the setting data from the receiver

➥Push the 'Read' button to transfer the 'Receiver settings' contents from the receiver.

◇ General menu



◇ RTTY tone frequency setting

3 tone frequencies and 3 shift frequencies are available.

➥Click to select the desired FSK tone/shift frequencies.

◇ RF/SQL Knob setting

The [RF/SQL] control can be set as the squelch control (default), The RF /squelch control or automatic (act as squelch in FM/AM modes; as RF in SSB/CW/RTTY modes). (p. 7)

◇ Misc (Miscellaneous)

• Peak holding:
When the peak hold function is ON, the highest activated segment of the meter remains visible for 0.5 sec.; when OFF, the meter functions normally.

• Scan resume:
When receiving a signal, scan will pause until the signal disappears or scan pauses for preprogrammed time. (p. 12)

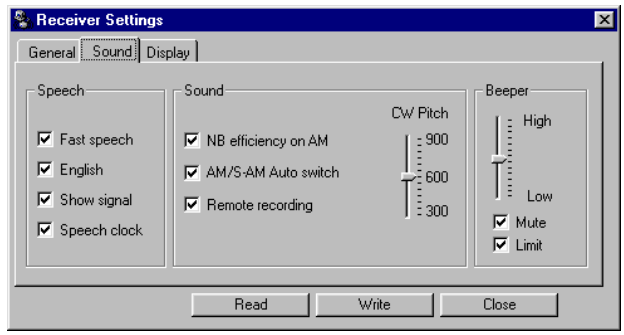
• Fast scan:
Sets the searching speed of frequencies or memory channels to fast.

• Auto TS:
This item sets the auto tuning speed. The main dial normally changes the frequency [250] × [tuning step]/revolution. When auto tuning speed is turned on this increases to [1,250] × [tuning step]/revolution through quick rotation of the dial.

• Skip blank channels:
Blank channels can be set to be skipped for memory skip scan. In addition, memory channels can be set to be skipped for both memory skip scan and full/programmed scan (frequency skip scan). This is useful to speed up the scan interval.

• Update clock:
The time data can be transferred from the PC to the receiver.

◇ Sound menu



◇ Speech

• Fast speech:
When the optional UT-102 VOICE SYNTHESIZER UNIT is installed, you can select between faster or slower synthsizer.

• English:
When the optional UT-102 VOICE SYNTHESIZER UNIT is installed, you can select between English and Japanese as the language.

• Show signal:
When an optional UT-102 SPEECH SYNTHESIZER UNIT is installed, the synthesizer can be set to read out the frequency/mode only, or both the frequency/mode and S-meter level.

• Speech clock:
When an optional UT-102 SPEECH SYNTHESIZER UNIT is installed, the synthesizer can be set to read out the frequency/mode only, or both the frequency/mode and actual time.

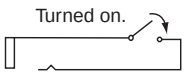
◇ Sound

• NB efficiency on AM:
When this item is set to ON, the noise blanker function is available in AM mode. This is useful when communicating in AM mode (the noise blanker function should not be used when listening to regular AM broadcasts as it may degrade the received audio).

• **AM/S-AM Auto switch:**
Automatically toggles between normal AM mode and S-AM mode depending on the detected audio-signal condition.

• **Remote recording:**
This item activates/deactivates the REC REMOTE jack on the rear panel. When ON is selected, the REC REMOTE jack is turned on when the squelch opens via the internal relay.

•Internal connection.



• **CW Pitch:**
The received CW audio pitch and monitored CW audio pitch can be adjusted to suit your preferences (300 to 900 Hz) without changing the operating frequency.

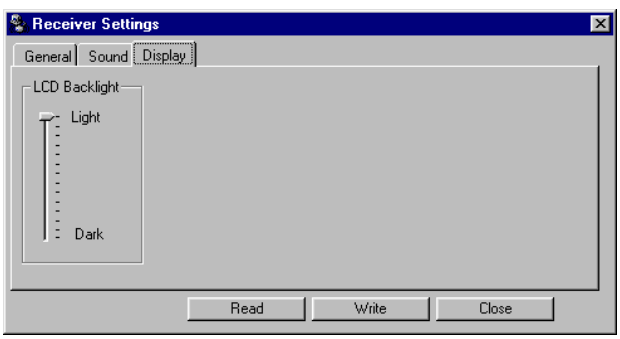
◇ Beeper

• **Beeper level:**
This item sets the audio level for confirmation beep tones. The level is selectable from low to high. When 'mute' has been selected, this setting has no effect.

• **Beeper mute:**
This item can turn off the confirmation beep tones for silent operation.

• **Beeper limit:**
This item allows you to set a maximum volume level for confirmation beep tones. Confirmation beep tones are linked to the [AF] control until a specified volume level is reached–further rotation of the [AF] control will not increase the volume of the beep tones.

◇ Display menu



• **LCD backlight:**
This item controls the intensity of the IC-R75's display backlighting.

■ Port settings

See p. 2 'COM (RS-232C) Port settings'.

8 TROUBLESHOOTING

If your receiver seems to be malfunctioning, please check the following points before sending it to a service center.

PROBLEM	POSSIBLE CAUSE	SOLUTION	REF.
No power comes ON.	• The RS-232C cable is not connected correctly. • The RS-232C port is not selected correctly.	• Check the RS-232C cable. • Select the RS-232C port correctly.	p. 1 p. 2
No sound comes from the speaker.	• Volume level is too low. • The squelch is closed.	• Click the [VOLUME] control with the sub mouse button to obtain a suitable level. • Click the [SQUELCH] control with the main mouse button or click the [SQL ▽] button to open the squelch.	p. 3 p. 3
Received audio is distorted.	• The operating mode is not selected correctly. • The IF filter is not selected correctly.	• Select a suitable operating mode with the mode switch. • Select a suitable IF filter with [FIL] button.	p. 3 p. 3
Sensitivity is low.	• The attenuator is activated.	• Click the [ATT] button to cancel the function.	p. 4

All stated specifications are subject to change without notice or obligation.

Count on us!

A-8328I-1EX-①

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